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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,266	12/03/2003	Gerald Laib	84,374	3264

7590 09/06/2007	
Office of Counsel Code OC4	
Naval Surface Warfare Center	
Indian Head Division	
101 Strauss Ave., Bldg. D-31	
Indian Head, MD 20640-5035	

EXAMINER	
MCDONOUGH, JAMES E	

ART UNIT	PAPER NUMBER
1755	

MAIL DATE	DELIVERY MODE
09/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/729,266		LAIB, GERALD	
	Examiner		Art Unit	
	James E. McDonough		1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicants arguments against the election of species, in the reply filed 5/7/2007, is found persuasive, therefore, the election requirement has been withdrawn.

Applicants argument on page 4, section A, filed 5/7/2007 against the Tapphorn rejection is found persuasive, therefore this rejection has been withdrawn.

Applicants argument on page 4, section B, filed 5/7/2007 against the Tapphorn in view of Garvick rejection is found persuasive, therefore this rejection has been withdrawn.

Applicants argument on page 5, section C, filed 5/7/2007 against the Baginski in view of Choi rejection is found persuasive, therefore this rejection has been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baginski et al. (USP 6,722,692) in view of Hee Cheul Choi et al. (Positive and negative photopatterning of metal oxides on silicon via bipolar electrochemical deposition) hereafter Choi in further view of Faber et al. (US 2001/0030007).

Baginski et al. discloses an explosive device formed by depositing a metal layer of a cation (i.e. a transition metal) on a substrate layer and reacting the metal layer to form an explosive layer (abstract and column 1, line 1 to column 2, line 59). The explosive layer is comprised of an explosive with a predetermined thickness (column 6, line 33 to column 7, line 12).

Although, Baginski et al. does not specifically disclose the explosive layer of a metal azide, because, Faber teaches that silver azide is used in ignition elements because it serves the dual function of simultaneously acting as a heat conducting material and improving the ignition sensitivity (paragraph 0006), it would have been prima facie obvious to someone of ordinary skill in the art at the time the invention was made to modify the teachings of Baginski, by incorporating silver azide into the composition as suggested by Faber.

Baginski et al. further discloses that the metal layer may be deposited on the substrate by any known deposition method (column 3, lines 30-50). Although Baginski et al. does not specifically disclose the method of depositing the metal layer on the substrate by an "in-situ" method, Choi et al. does. Choi et al. teaches various in-situ deposition methods for depositing metal layers on substrates.

Baginski et al. and Choi et al. are analogous art because they are from the same field of endeavor: thin film deposition. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the in-situ deposition methods for metal layers on substrates as suggested by Choi et al. with the explosive device as suggested by Baginski et al. The suggestion/motivation for doing so would have been to obtain an explosive device using a known deposition method as suggested by Baginski et al.

Baginski et al. and Choi et al. disclose the claimed invention except for expressly stating the specific explosive of copper azide and the specific amount of explosive being no more than 10 milligrams. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to form the specific explosive in the specific amount, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art and applicant has not state that the specific explosive or the specific amount is a criticality of the present invention. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Response to Arguments

Most of applicant's arguments are considered moot in light of the new rejection, however, arguments that would still apply to the new rejection are discussed below.

Applicants argue that Baginski teaches away from being combined with another reference such as Choi. This is found not persausive because for a reference to teach

away, it must have some disclosure or suggestion that the combination will not work, and there is nothing in Baginski that suggest combinations with other references will not work.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

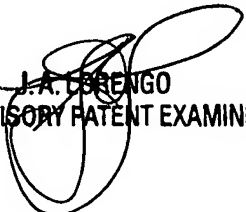
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James E. McDonough whose telephone number is (571)272-6398. The examiner can normally be reached on 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571)272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JEM 8/23/2007


J. A. LORENGO
SUPERVISORY PATENT EXAMINER